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[CLAIMS]

- 1. A positive-working lithographic printing plate precursor comprising (i) a grained and anodized aluminum support having a hydrophilic surface and (ii) a heat-sensitive oleophilic coating provided on the hydrophilic surface, wherein said coating is capable of dissolving in an aqueous alkaline developer at a higher dissolution rate in areas of said coating which are exposed to heat or infrared light than in unexposed areas, characterized in that the hydrophilic surface has a surface roughness, expressed as arithmetical mean center-line roughness Ra, which is less than 0.40 µm and comprises more than 3.0 g/m² of aluminum oxide.
- 2. A plate precursor according to claim 1 wherein the hydrophilic surface has a surface roughness, expressed as arithmetical mean center-line roughness Ra, which is less than 0.3 µm.
- 3. A plate precursor according to claim 1 wherein the aluminum support comprises more than $4.0~{\rm g/m}^2$ of aluminum oxide at the hydrophilic surface.
- 4. A plate precursor according to claim 1 wherein the coating comprises (a) a hydrophobic polymer which is soluble in the developer and (b) a dissolution inhibitor.
 - 5. A plate precursor according to claim 4 wherein the dissolution inhibitor is a water-repellent polymer.
- 6. A plate precursor according to 5 wherein the water-repellent polymer is
 - a polymer comprising siloxane and/or perfluoroalkyl units; or
 - a block- or graft-copolymer of a poly(alkylene oxide) block and a block comprising siloxane and/or perfluoroalkyl units.
- 7. A plate precursor according to claim 4 wherein the dissolution
 inhibitor is an organic compound comprising an aromatic group and a hydrogen bonding site.

8. A plate precursor according to claim 1 wherein the coating further comprises a dissolution accelerator.